

ANNOTATED CHECKLIST OF CALIFORNIA MYXOMYCETES

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ABSTRACT

An annotated list of the 282 species of Myxomycetes from California was compiled from the existing literature and herbarium records. Two new state records are reported.

This list of the Myxomycetes of California is based on literature reports and herbarium specimens. Original literature has been reviewed, and specimens of most taxa reported from the state are in the herbarium of the California State University Chico (CSUC). Those taxa not in the (CSUC) Herbarium were located in the Herbarium at the University of California (UC).

In the first report on the Myxomycetes of California, Phillips (1877) listed seven genera, 26 species, and one variety. Plunkett (1934) published an annotated list of 24 genera containing 87 species including varieties, all within a 100 mile radius of Los Angeles. Pratt and Pratt (1944) prepared a list for the San Francisco region, reporting 20 genera with 75 species, including varieties. Whitney (1978, 1980, 1982), using the moist chamber technique, reported seven new state records and six new species. Cox (1981) reported four new state records and one new species. In the most comprehensive and significant accounts of the Myxomycetes in California, Kowalski (1966, 1967a, 1973a, 1987), Kowalski and Curtis (1968, 1970) reported 71 new records.

Following the names of the taxa in the list are the relative abundance, substrate, and ecological distribution based on Ornduff's classification of California woodland plant communities (Ornduff 1974). (Ornduff's classification is abbreviated as follows: C—closed pine forest, M—montane forest 4000–6500', N—north coastal forest, P—pinon juniper woodland, S—subalpine forest 6500–11,000', and V—valley and foothill woodland 0–4000'.) Following these brief annotations are author and date citations of the earliest report of the taxon from California so far as we have been able to determine. If an asterisk (*) follows the annotations, we have been unable to substantiate the first direct literature citation of the species for the state. The nomenclature generally follows that of Martin and Alexop-

oulos (1969) and Martin, Alexopoulos, and Farr (1983). Varieties have not been included.

One specimen of each new record has been deposited in the Herbarium of the Department of Biological Sciences, California State University, Chico (CSUC).

ANNOTATED CHECKLIST OF CALIFORNIA MYXOMYCETES

MYXOMYCETES CERATIOMYXOMYCETIDAE CERATIOMYXALES

Ceratiomyxaceae

Ceratiomyxa fruticulosa (Mull.) T. Macbr.—Common; C, M, N, S, V; decaying wood, leaves, and litter. (Plunkett 1934)

MYXOGASTROMYCETIDAE LICEALES

Cibriariaceae

Cibriaria argillacea (Pers.) Pers.—Common; M, N, S, V; decaying wood. (Pratt and Pratt 1944)

Cibriaria aurantiaca Schrad.—Rare; V; decaying wood. (T. Macbride 1899)

Cibriaria dictyospora Martin & Lovejoy—Rare; M, S, V; decayed wood. (Kowalski 1973a)

Cibriaria ferruginea Meylan—Rare; N; dead coniferous wood. (Kowalski 1987)

Cibriaria intricata Schrad.—Rare; M, S; decaying wood.*

Cibriaria macrocarpa Schrad.—Common; M, N, S, V; dead wood, especially conifers. (Pratt and Pratt 1944)

Cibriaria microcarpa (Schrad.) Pers.—Rare; N, V; decayed wood. (Macbride and Martin 1934)

Cibriaria minutissima Schw.—Rare; M, V; decayed wood, often among mosses. (Kowalski and Curtis 1970)

Cibriaria oregana H. C. Gilbert—Rare; V; decaying coniferous wood. (Martin and Alexopoulos 1969)

Cibriaria piriformis Schrad.—Common; N; dead coniferous wood. (Pratt and Pratt 1944)

Cibriaria purpurea Schrad.—Common; N; decayed wood. (Kowalski 1967a)

Cibriaria rufa (Roth) Rost.—Common; M, N, S, V; decayed wood, mainly conifers. (Pratt and Pratt 1944)

Cibriaria splendens (Schrad.) Pers.—Rare; N; decaying wood, mainly conifers. (Kowalski and Curtis 1968)

Cibriaria violacea Rex—Common; N, V; dead wood, bark of living and dead trees, and on mosses. (Pratt and Pratt 1944)

Dictyidium cancellatum (Batsch) T. Macbr.—Common; M, N, V; rotten wood. (Plunkett 1934)

Dictyidium mirabile (Rost.) Meylan—Rare; M, S; decayed coniferous wood. (Martin and Alexopoulos 1969)

Lindbladia tubulina Fries

=*Lindbladia effusa* (Ehrenb.) Rost.—Rare; M; decayed wood, usually conifers. (Kowalski 1967a)

Liceaceae

Licea alexopouli M. Blackwell—Rare; V; developed on cow dung in moist chamber. (Mock and Kowalski 1976)

- Licea biforis* Morgan—Rare; M; bark of living trees. (Kowalski and Curtis 1968)
Licea castanea G. Lister—Rare; V; dead wood and bark. (Kowalski 1973a)
Licea deplanata (Kow.) Kow.
 =*Licea aplanata* Kow.—Rare; V; on dead *Eucalyptus* leaves. (Kowalski 1970b)
Licea kleistobolus Martin—Rare; V; decayed wood. (Kowalski 1967a)
Licea lucens Nann.-Brem.—Rare; V; developed on bark in moist chamber. (Kowalski 1987)
Licea minima Fries—Common; M, V; dead wood, mainly conifers. (Cooke 1949)
Licea operculata (Wingate) Martin—Common; V; bark of living trees. (Kowalski 1987)
Licea parasitica (Zukal) Martin—Rare; N, V; bark of living trees. (Kowalski and Curtis 1970)
Licea pedicellata (H. C. Gilbert) H. C. Gilbert—Rare; V; bark of living trees. (Kowalski 1973a)
Licea perexigua Brooks & Keller—Common; N, V; bark of living trees and grapevines. (Keller and Brooks 1977)
Licea pusilla Schrad.—Rare; M, V; decayed wood. (Kowalski 1966)
Licea scyphoides Brooks & Keller—Common; N, V; bark of living trees. (Whitney 1982)
Licea tenera Jahn—Rare; V; dead wood, bark, and dung of herbivorous animals. (Kowalski and Curtis 1968)
Licea variabilis Schrad.—Common; M, V; decayed wood. (Kowalski 1967a)
Listerella paradoxa Jahn—Rare; V; dead leaves. (Kowalski 1967a)

Enteridiaceae

(Reticulariaceae)

- Dictydiaethalium plumbeum* (Schum.) Rost.—Common; V; dead wood. (Plunkett 1934)
Enteridium lycoperdon Bull.—Rare; V; dead wood. (Macbride 1899)
Enteridium minutum Sturgis—Rare; M, S; decayed wood. (Kowalski 1987)
Enteridium olivaceum Ehrenb.—Rare; M, S; dead coniferous wood. (Macbride and Martin 1934)
Enteridium splendens Morgan—Rare; V; dead wood. (Plunkett 1934)
Lycogala epidendrum (L.) Fries—Common; M, N, V; decaying wood. (Macbride 1899)
Lycogala exiguum Morgan—Rare; decayed wood. (Kowalski and Curtis 1970)

ECHINOSTELIALES

Clastodermataceae

- Barbeyella minutissima* Meylan—Common; M, N; bryophytes on decayed wood, rarely on wood alone. (Kowalski 1973a)
Clastoderma debaryanum Blytt—Common; N; dead wood, bark, old fungal sporophores, and miscellaneous debris. (Pratt and Pratt 1944)
Clastoderma pachypus Nann.-Brem.—Common; V; in moist chamber on bark from living trees. (Whitney 1982)

Echinosteliaceae

- Echinostelium apitectum* Whitney—Common; P; juniper bark in moist chamber. (Whitney 1980)
Echinostelium brooksii Whitney—Common; P; juniper bark in moist chamber. (Whitney 1980)
Echinostelium coelocephalum Brooks & Keller—Rare; V; bark of living trees and grapevines in moist chamber. (Whitney 1980)

- Echinostelium colliculosum* Whitney & Keller—Common; M, P, V; bark of living trees and grapevines in moist chamber. (Whitney 1980)
- Echinostelium corynophorum* Whitney—Rare; M, P; juniper bark in moist chamber. (Whitney 1980)
- Echinostelium fragile* Nann.-Brem.—Common; M, P; bark of living trees and shrubs in moist chamber. (Whitney 1980)
- Echinostelium lunatum* Olive & Stoianovitch—Rare; V; tree bark and grapevines in moist chamber. (Whitney 1980)
- Echinostelium minutum* de Bary—Common; M, N, P, V; dung, dead wood, leaf litter, and bark of living trees and shrubs in moist chamber. (Kowalski and Curtis 1970)
- Echinostelium paucifilum* Whitney—Rare; M, P; juniper bark in moist chamber. (Whitney 1980)

TRICHIALES

Dianemaceae

- Calomyxa metallica* (Berk.) Nieuwl.
= *Margarita metallica* (Berk.) A. Lister—Common; M, V; rotting wood. (Plunkett 1934)
- Dianema aggregatum* Kow.—Common; M, S; stems of living shrubs and plant debris, near melting snow. (Kowalski 1967c)
- Dianema corticatum* A. Lister—Common; V; dead coniferous wood. (Martin 1948b)
- Dianema depressum* (A. Lister) A. Lister—Rare; M; dead wood. (Kowalski 1967a)
- Dianema niveale* (Meylan) G. Lister
= *Dianema andersonii* Morgan—Rare; M; twigs and debris. (Kowalski and Curtis 1968)
- Dianema subretisporum* Kow.—Rare; M; decaying fir twigs. (Kowalski 1967a)

Trichiaceae

- Arcyodes incarnata* (Alb. & Schw.) O. F. Cook—Rare; V; dead wood. (Kowalski 1966)
- Arcyria cinerea* (Bull.) Pers.—Common; N, V; dead wood and herbivorous animal dung. (Plunkett 1934)
- Arcyria denudata* (L.) Wetst.—Common; M, N, V; dead wood. (Plunkett 1934)
- Arcyria elaterensis* Mulleavy—Rare; V; on horse dung in moist chamber. (Mulleavy 1977)
- Arcyria ferruginea* Sauter—Rare; N; dead wood. (Macbride 1922)
- Arcyria incarnata* Pers.—Common; M, N, S, V; decayed wood. (Plunkett 1934)
- Arcyria insignis* Kalchbr. & Cooke—Common; N, V; dead wood and herbaceous stems. (Kowalski 1966)
- Arcyria magna* Rex—Rare; N, V; dead wood. (Kowalski 1987)
- Arcyria nutans* (Bull.) Grev.—Common; N, V; decaying wood. (Macbride 1922)
- Arcyria occidentalis* (T. Macbr.) Lister—Rare; V; dead wood. (Kowalski 1966)
- Arcyria oerstedtii* Rost.—Common; N, V; rotten wood. (Plunkett 1934)
- Arcyria pomiformis* (Leers) Rost.—Common; V; dead wood. (Plunkett 1934)
- Arcyria versicolor* Phill.—Common; M, N, S; dead coniferous wood. (Phillips 1877)
- Calonema luteolum* Kow.—Common; V; cow dung. (Kowalski 1969a)
- Hemitrichia abietina* (Wigand) G. Lister—Rare; V; dead wood. (Martin 1948b)
- Hemitrichia calyculata* (Speg.) Farr—Rare; S; on decayed wood.*
- Hemitrichia clavata* (Pers.) Rost.—Common; V; dead wood. (Plunkett 1934)
- Hemitrichia karstenii* (Rost.) A. Lister—Rare; V; dead wood. (Plunkett 1934)
- Hemitrichia montana* (Morgan) T. Macbr.—Common; M, S; dead coniferous wood. (Macbride 1899)
- Metatrichia vesparium* (Batsch) Nann.-Brem.
= *Hemitrichia vesparium* (Batsch) T. Macbr.—Common; V; all types of rotted wood. (Plunkett 1934)

- Oligonema flavidum* (Peck) Peck—Rare; V; rotted wood. (Macbride and Martin 1934)
Oligonema schweinitzii (Berk.) Martin—Common; V; decayed wood. (Martin 1948b)
Perichaena chrysosperma (Currey) A. Lister—Common; V; tree bark. (Plunkett 1934)
Perichaena corticalis (Batsch) Rost.—Common; V; dead wood and bark. (Plunkett 1934)
Perichaena depressa Libert—Common; V; dead wood and bark. (Plunkett 1934)
Perichaena minor (G. Lister) Hagelst.—Rare; V; cow dung. (Cox 1981)
Perichaena vermicularis (Schw.) Rost.—Rare; V; dead herbaceous stems, leaves, and bark. (Kowalski 1966)
Prototrichia metallica (Berk.) Massee—Common; M, S; dead coniferous wood. (Macbride 1922)
Trichia alpina (R. E. Fries) Meylan—Common; M, S; dead coniferous wood, living shrub stems, and duff. (Cooke 1949)
Trichia botrytis (Gmel.) Pers.—Common; M, S, V; dead and decaying wood. (Pratt and Pratt 1944)
Trichia brunea Cox—Rare; M; on cow dung in moist chamber. (Cox 1981)
Trichia contorta (Ditmar) Rost.—Common; V; dead wood. (Plunkett 1934)
Trichia decipiens (Pers.) T. Macbr.—Rare; V; dead wood. (Macbride 1922)
Trichia favaginea (Batsch) Pers.—Common; M, S, V; dead wood. (Pratt and Pratt 1944)
Trichia flavicoma (A. Lister) Ing—Rare; V; dead hardwood leaves. (Kowalski 1974)
Trichia floriformis (Schw.) G. Lister—Rare; N, V; dead wood. (Plunkett 1934)
Trichia lutescens (A. Lister) A. Lister—Rare; V; dead wood. (Martin 1948b)
Trichia macbridei M. E. Peck—Rare; V; dead bark. (Kowalski 1987)
Trichia scabra Rost.—Common; V; dead wood and bark. (Pratt and Pratt 1944)
Trichia subfusca Rex—Rare; N; dead wood. (Kowalski 1987)
Trichia varia (Pers.) Pers.—Common; M, S, V; dead and decaying wood. (Macbride 1899)
Trichia verrucosa Berk.—Rare; N; decaying wood. (Kowalski 1973a)

PHYSARALES

Didymiaceae

- Diachea leucopodia* (Bull.) Rost.—Common; V; dead leaves, sticks, and living plants. (Macbride 1899)
Diderma alpinum Meylan—Common; M, S; dead wood and twigs. (Plunkett 1934)
Diderma antarctica (Speg.) Sturgis—Rare; V; on dead leaves. (Plunkett 1934)
Diderma asteroides (A. & G. Lister) G. Lister—Common; N, V; dead wood, bark, and leaves. (Macbride 1922)
Diderma brooksi Kow.—Rare; V, M, S; decaying conifer twigs, near the melting snow. (Kowalski 1968a)
Diderma chondrioderma (de Bary & Rost.) G. Lister—Common; N, V; tree bark and mosses. (Martin 1948b)
Diderma deplanatum Fries—Rare; M, S; dead coniferous wood, twigs, and needles. (Cooke 1949)
Diderma effusum (Schw.) Morgan—Rare; V; dead leaves. (Kowalski 1987)
Diderma globosum Pers.—Common; N, V; dead wood and litter. (Pratt and Pratt 1944)
Diderma hemisphaericum (Bull.) Hornem.—Common; V; dead leaves. (Plunkett 1934)
Diderma lyallii (Massee) T. Macbr.—Common; M, S; dead coniferous wood and litter. (Cooke 1949)
Diderma montanum (Meylan) Meylan—Rare; M, S; dead coniferous wood and litter. (Martin and Alexopoulos 1969)
Diderma nigrum Kow.—Rare; M, S; dead coniferous twigs. (Kowalski 1968b)
Diderma niveum (Rost.) T. Macbr.—Common; M, S; dead coniferous wood and twigs. (Macbride 1899)

- Diderma ochraceum* Hoffm.—Rare; N; decaying wood. (Kowalski 1967a)
- Diderma radiatum* (L.) Morgan—Rare; M, S; dead wood. (Plunkett 1934)
- Diderma spumariooides* (Fries) Fries—Rare; V; dead leaves and litter. (Plunkett 1934)
- Diderma subcaeruleum* Kow.—Common; S; decaying coniferous twigs, near the melting snow. (Kowalski 1968b)
- Diderma subincarnatum* Kow.—Common; V; dead leaves. (Kowalski 1967b)
- Diderma testaceum* (Schrad.) Pers.—Rare; N, V; dead leaves and litter. (Phillips 1877)
- Diderma trevelyanii* (Grev.) Fries—Common; V; dead wood and leaves. (Macbride 1899)
- Diderma umbilicatum* Pers.—Rare; V; decayed wood, leaves, and *Eucalyptus* bark. (Kowalski and Curtis 1970)
- Didymium anellus* Morgan—Common; N, V; dead leaves. (Plunkett 1934)
- Didymium bahiense* Gottsberger—Rare; N; dead leaves. (Kowalski 1987)
- Didymium clavatum* (Alb. & Schw.) Rab.—Common; V; dead wood, leaves, and twigs. (Plunkett 1934)
- Didymium difforme* (Pers.) S. F. Gray—Common; N, V; dead leaves and twigs. (Plunkett 1934)
- Didymium dubium* Rost.—Common; M, N, S, V; dead leaves and twigs. (Pratt and Pratt 1944)
- Didymium intermedium* Schroet.—Rare; V; dead leaves and twigs. (Plunkett 1934)
- Didymium iridis* (Ditmar) Fries—Common; V; dead leaves, twigs, and wood; sometimes on mosses.*
- Didymium karstensii* Nann.-Brem.—Rare; V; jackrabbit dung in moist chamber. (Merrill 1969)
- Didymium laxifila* G. Lister
= *Didymium aurantipes* Brooks & Kow.—Rare; V; decaying leaves. (Kowalski 1973b)
- Didymium megalosporum* Berk. & Curt.—Rare; V; dead leaves and plant litter.*
- Didymium melanospermum* (Pers.) T. Macbr.—Common; V; dead wood, leaves, and twigs. (Plunkett 1934)
- Didymium minus* (A. Lister) Morgan—Rare; V; decaying leaves. (Kowalski 1966)
- Didymium nigripes* (Link) Fries—Common; N, V; dead leaves, twigs, and bark. (Pratt and Pratt 1944)
- Didymium nullifilum* (Kow.) Farr
= *Squamuloderma nullifila* Kow.—Rare; V; cow dung in moist chamber. (Kowalski 1972b; Farr 1982)
- Didymium ovoideum* Nann.-Brem.—Rare; M, S; on cow dung in moist chamber. (Cox 1981)
- Didymium quitense* (Pat.) Torrend—Rare; S; dead leaves and twigs. (Macbride and Martin 1934)
- Didymium rugulosporum* Kow.—Rare; V; on cow dung. (Kowalski 1969b)
- Didymium serpula* Fries—Rare; V; dead leaves. (Kowalski 1966)
- Didymium squamulosum* (Alb. & Schw.) Fries—Common; N, V; dead leaves. (Phillips 1877)
- Didymium trachysporum* G. Lister—Rare; N; dead leaves, twigs, and wood. (Pratt and Pratt 1944)
- Didymium tubi-crystallinum* Nann.-Brem. & Critchf.—Rare; M; on dead coniferous wood. (Nannenga-Bremekamp and Critchfield 1988)
- Didymium vaccinum* (Dur. & Mont.) Buchet—Rare; V; on dead leaves. (Macbride and Martin 1934)
- Didymium verrucosporum* Welden—Rare; V; dead leaves. (Kowalski 1987)
- Lepidoderma aggregatum* Kow.—Rare; M, S; decaying coniferous bark. (Kowalski 1987)
- Lepidoderma carestianum* (Rab.) Rost.—Common; M, S; forest litter. (Macbride & Martin 1934)
- Lepidoderma chailletii* Rost.—Common; M, S; forest litter and stems of living shrubs. (Macbride 1922)

- Lepidoderma crustaceum* Kow.—Common; M, S; leaves, twigs, and litter. (Kowalski 1967a)
- Lepidoderma granuliferum* (Phill.) R. E. Fries—Common; M, S; leaves, twigs, litter, and stems of living shrubs. (Macbride and Martin 1934)
- Lepidoderma tigrinum* (Schrad.) Rost.—Rare; V; decayed wood and on mosses. (Martin 1948b)
- Mucilago crustacea* Wiggers—Rare; V; stems of herbaceous plants. (Kowalski 1973a)
- Trabrooksia appanata* Keller—Rare; N, V; bark of living trees in moist chamber. (Whitney 1982)

Physaraceae

- Badhamia affinis* Rost.—Common; N, V; decayed leaves. (Kowalski and Curtis 1968)
- Badhamia bispora* Whitney—Rare; M; bark and decayed wood in moist chamber. (Whitney 1978)
- Badhamia capsulifera* (Bull.) Berk.—Rare; N, V; dead bark. (Pratt and Pratt 1944)
- Badhamia crassipella* Whitney & Keller—Common; N, V; dead and decaying wood. (Whitney and Keller 1982)
- Badhamia goniospora* Meylan
= *Badhamia dearnessii* Hagelst.—Rare; M, V; dead wood. (Kowalski 1975a)
- Badhamia foliicola* A. Lister—Common; N, V; dead leaves and twigs. (Plunkett 1934)
- Badhamia gracilis* (T. Macbr.) T. Macbr.—Common; V; dead wood. (Macbride and Martin 1934)
- Badhamia macrocarpa* (Ces.) Rost.—Common; V; dead wood, bark, and litter. (Plunkett 1934)
- Badhamia nitens* Berk.—Common; M, N, V; dead wood and bark; sometimes lichens and mosses. (Plunkett 1934)
- Badhamia obovata* (Peck) S. J. Smith—Rare; N, V; dead wood. (Kowalski 1973a)
- Badhamia ovispora* Racib.—Rare; V; dead wood, litter, and herbivorous animal dung. (Merrill 1969)
- Badhamia papaveracea* Berk. & Rav.—Rare; V; on *Populus* bark. (Plunkett 1934)
- Badhamia populina* A. & G. Lister—Rare; V; dead wood and leaves. (Martin 1948b)
- Badhamia panicea* (Fries) Rost.—Common; V; dead wood and leaves. (Macbride 1922)
- Badhamia utricularis* (Bull.) Berk.—Common; M, N, V; dead wood and leaves. (Plunkett 1934)
- Badhamia versicolor* A. Lister—Common; V; bark of living and dead trees, often on mosses. (Plunkett 1934)
- Badhamiopsis ainoae* (Yama.) Brooks & Keller
= *Badhamia ainoae* Yama.—Common; V; bark of living trees. (Kowalski and Curtis 1968)
- Craterium aureum* (Schum.) Rost.—Common; N, V; dead wood and leaves. (Macbride and Martin 1934)
- Craterium leucocephalum* (Pers.) Ditmar—Common; N, V; dead leaves. (Macbride 1922)
- Craterium minutum* (Leers) Fries—Common; N, V; dead leaves. (Plunkett 1934)
- Fuligo cinerea* (Schw.) Morgan—Rare; V; forest litter. (Plunkett 1934)
- Fuligo intermedia* T. Macbr.—Common; M, S, V; forest litter. (Cooke 1949)
- Fuligo septica* (L.) Wiggers—Common; M, V; decayed wood and litter. (Plunkett 1934)
- Leocarpus fragilis* (Dicks.) Rost.—Common; M, S; dead wood and forest debris, and sometimes on soil. (Macbride 1922)
- Physarum albescens* Ellis—Common; M, S; dead wood and forest debris. (Cooke 1949)
- Physarum alpinum* (A. & G. Lister) G. Lister—Rare; M, S; litter and dead twigs. (Lister 1910)

- Physarum auripigmentum* Martin—Common; M, S; dead coniferous wood. (Martin 1948a)
- Physarum auriscalpium* Cooke—Rare; V; dead wood, debris, and moss. (Plunkett 1934)
- Physarum bitectum* G. Lister—Common; M, V; dead leaves and twigs. (Plunkett 1934)
- Physarum bivalve* Pers.—Common; V; dead leaves and twigs.*
- Physarum brunneolum* (Phill.) Massee—Common; V; dead wood and leaves. (Macbride 1899)
- Physarum carneum* G. Lister & Sturgis—Common; N, V; dead wood and twigs. (Pratt and Pratt 1944)
- Physarum cinereum* (Batsch) Pers.—Common; V; dead leaves.*
- Physarum compressum* Alb. & Schw.—Common; V; dead wood, leaves and debris. (Macbride 1922)
- Physarum contextum* (Pers.) Pers.—Rare; M; dead leaves and twigs. (Phillips 1877)
- Physarum crateriforme* Petch.—Common; V; rough barked trees. (Kowalski 1967b)
- Physarum decipiens* Curtis—Common; M, S; dead wood. (Martin and Alexopoulos 1969)
- Physarum diderma* Rost.—Common; V; bark of dead wood and associated mosses. (Kowalski 1967b)
- Physarum didermoides* (Pers.) Rost.—Common; V; dead wood, leaves, and bark. (Plunkett 1934)
- Physarum flavidum* (Peck) Peck—Rare; V; mosses and dead wood.*
- Physarum galbeum* Wingate—Common; V; dead wood. (Martin and Alexopoulos 1969)
- Physarum gilkeyanum* H. C. Gilbert—Rare; V; leaf litter. (Kowalski and Curtis 1968)
- Physarum globuliferum* (Bull.) Pers.—Common; N, V; dead wood. (Plunkett 1934)
- Physarum gyrosum* Rost.—Rare; M; deer dung. (Cox 1981)
- Physarum javanicum* Racib.—Rare; V; dead wood and twigs. (Martin and Alexopoulos 1969)
- Physarum leucophaeum* Fries—Common; V; dead wood and leaves.*
- Physarum leucopus* Link—Common; V; dead leaves and wood. (Kowalski and Curtis 1970)
- Physarum luteolum* Peck—Rare; M; dead leaves. (Kowalski and Curtis 1970)
- Physarum mortonii* T. Macbr.—Common; V; dead leaves. (Plunkett 1934)
- Physarum mutable* T. Macbr.—Rare; N, V; dead leaves. (Martin 1948b)
- Physarum notabile* T. Macbr. Common; N, V; dead wood and bark. (Pratt and Pratt 1944)
- Physarum nutans* Pers.—Common; N, V; dead wood. (Phillips 1877)
- Physarum penetrale* Rex—Rare; N, V; dead wood. (Plunkett 1934)
- Physarum psittacinum* Ditmar—Rare; M.
- New California record. Butte Co., Magalia Reservoir, 731 m, on dead wood of *Cornus nutallii* Audubon, 20 Oct. 1986, (CSUC) #49871
- Physarum pusillum* (Berk. & Curt.) Lister—Rare; V; dead leaves.*
- Physarum sessile* Brandza—Rare; V; dead leaves. (Plunkett 1934)
- Physarum spinisporum* U. Eliass.—Rare; M, V; on cow dung. (Cox 1981)
- Physarum superbum* Hagelst.—Rare; M, S.
- New California record. Tehama Co., Morgan Summit, 1755 m, on living leaves of *Arctostaphylos nevadensis* A. Gray, 6 May 1989, (CSUC) #49872
- Physarum tenerum* Rex—Rare; N; on dead wood. (Pratt and Pratt 1944)
- Physarum vernum* Somm.—Rare; V; dead leaves and twigs. (Plunkett 1934)
- Physarum viride* (Bull.) Pers.—Common; M, V; on dead wood. (Macbride 1922)
- Willkommlangea reticulata* (Alb. & Schw.) Farr
= *Cienkowskia reticulata* (Alb. & Schw.) Kuntze—Rare; V; dead wood. (Macbride 1922)

STEMONITOMYCETIDAE
STEMONITALES

Schenellaceae

Schenella microspora Martin—Rare; N; dead wood. (Martin 1961)

Schenella simplex T. Macbride—Rare; N, V; dead wood. (Macbride and Martin 1934)

Stemonitaceae

Amaurochaete atra (Alb. & Schw.) Rost.

=*Amaurochaete fuliginosa* (Sow.) T. Macbr.—Rare; V; dead and decaying bark.
(Kowalski and Curtis 1968)

Amaurochaete comata G. Lister & Brandza—Rare; V; dead bark. (Kowalski 1987)

Amaurochaete ferruginea T. Macbr. & Martin—Rare; V; dead coniferous wood. (Macbride and Martin 1934)

Amaurochaete tubulina (Alb. & Schw.) T. Macbr.—Rare; N; dead wood. (Martin 1948b)

Collocladum oculatum (Lipert) G. Lister—Rare; N; rotting wood. (Kowalski 1987)

Comatricha acanthodes Alexop.—Rare; N, V; living tree bark in moist chamber.
(Whitney 1982)

Comatricha alpina Kow.—Common; M, S; dead coniferous wood. (Kowalski 1973a,
1973b)

Comatricha anomala Rammeloo—Rare; V; decayed wood. (Kowalski and Demaree
1987)

Comatricha elegans (Racib.) G. Lister—Common; V; dead wood. (Plunkett 1934)

Comatricha ellae Harkonen—Rare; V; decayed bark and wood. (Kowalski 1987)

Comatricha fimbriata G. Lister & Cran.—Common; V; dead wood and bark of living
trees. (Martin 1948b)

Comatricha fusiforme Kow.—Common; M, S; dead coniferous wood. (Kowalski 1968b)

Comatricha irregularis Rex—Common; M, N, S; dead wood. (Pratt and Pratt 1944)

Comatricha laxa Rost.—Common; V; dead wood. (Whitney 1982)

Comatricha longipila Nann.-Brem.—Rare; V; bark of living trees. (Kowalski 1987)

Comatricha lurida A. Lister—Common; N, V; on dead leaves. (Kowalski and Curtis
1970)

Comatricha nigra (Pers.) Schroet.—Common; M, N, S, V; dead wood. (Plunkett 1934)

Comatricha pencillata Nann.-Brem. & Yamam.—Rare; M; dead wood. (Kowalski
1987)

Comatricha pulchella (C. Bab.) Rost.—Common; N, V; dead wood and dead and
living leaves. (Pratt and Pratt 1944)

Comatricha rubens A. Lister—Common; N, V; dead leaves and bark. (Kowalski and
Curtis 1968)

Comatricha subcaespitosa Peck—Rare; V; dead wood. (Macbride and Martin 1934)

Comatricha suksdorfii Ellis & Ev.—Common; M, S; dead coniferous wood. (Plunkett
1934)

Comatricha tenerima (M. A. Curt.) G. Lister—Rare; V; on bark. (Plunkett 1934)

Comatricha typhoides (Bull.) Rost.—Common; N, V; decayed wood. (Macbride 1899)

Diacheopsis effusa Kow.—Rare; M, S; on dead coniferous twigs near melting snow.
(Kowalski 1975b)

Diacheopsis metallica Meylan—Common; M, S; living shrub stems and plant debris
near melting snow. (Kowalski 1975a)

Diacheopsis spinosifila Farr & Critchf.—Rare; M; dead coniferous wood. (Farr 1988)

Enerthenema intermedium Nann.-Brem. & Critchf.—Rare; M; dead coniferous wood.
(Nannenga-Bremekamp and Critchfield 1988)

Enerthenema malanospermum T. Macbr. & Martin—Common; M, S; dead coniferous
wood. (Cooke 1949)

Enerthenema papillatum (Pers.) Rost.—Common; M, S; dead coniferous wood. (Ko-
walski 1966)

- Lamproderma acanthosporum* Kow.—Rare; M, S; dead coniferous twigs and living shrubs. (Kowalski 1968b)
- Lamproderma arcyrioides* (Sommerf.) Rost.—Common; M, S; coniferous wood, twigs, and debris; alpine. (Cooke 1949)
- Lamproderma arcyrionema* Rost.—Rare; M, S; dead coniferous twigs. (Kowalski 1973a)
- Lamproderma atrosporum* Meylan—Common; M, N, S; dead coniferous twigs and debris. (Pratt and Pratt 1944)
- Lamproderma biasperosporum* Kow.—Common; M, S; dead coniferous wood. (Kowalski 1968b)
- Lamproderma carestiae* (Ces. & de Not.) Meylan—Common; M, S; dead coniferous twigs and debris. (Cooke 1949)
- Lamproderma columbinum* (Pers.) Rost.—Rare; N; dead coniferous wood. (Pratt & Pratt 1944)
- Lamproderma cribriarioides* (Fries) R. E. Fries—Common; M; dead coniferous twigs and debris. (Kowalski 1967b)
- Lamproderma disseminatum* Kow.—Rare; M, S; dead coniferous wood. (Kowalski 1970b)
- Lamproderma echinosporum* Meylan—Common; M, S; coniferous litter, herbaceous plant debris, and living shrubs. (Kowalski 1970a)
- Lamproderma fuscatum* Meylan—Common; M, S; litter, wood, and twigs of conifers. (Kowalski 1968b)
- Lamproderma gulielmae* Meylan—Rare; M; dead leaves and twigs. (Kowalski 1967a)
- Lamproderma maculatum* Kow.—Common; M, S; coniferous duff and branches of living shrubs. (Kowalski 1970b)
- Lamproderma muscorum* (Lev.) Hagelst.—Rare; V; decaying leaves. (Kowalski 1970a)
- Lamproderma sauteri* Rost.—Common; M, S; coniferous debris and broadleaf shrubs and stems. (Macbride and Martin 1934)
- Lamproderma scintillans* (Berk. & Br.) Morgan—Common; N, V; dead branches, logs, and leaves of broadleaf trees. (Plunkett 1934)
- Leptoderma iridescens* G. Lister—Rare; V; plant litter. (Macbride and Martin 1934)
- Macbrideola argentea* Nann.-Brem. & Yamam.—Rare; V; on bark in moist chamber. (Kowalski 1987)
- Macbrideola cornea* (G. Lister) Alexop.—Common; N, V; variety of woody plants. (Martin and Alexopoulos 1969)
- Macbrideola decapillata* H. C. Gilbert—Common; V; on bark in moist chamber. (Kowalski 1973a)
- Macbrideola martinii* (Alexop. & Beneke) Alexop.—Rare; M; on juniper bark in moist chamber. (Kowalski 1987)
- Paradiacheopsis cribrata* Nann.-Brem.—Rare; N; oak bark in moist chamber. (Kowalski 1987)
- Paradiacheopsis microcarpa* (Meylan) Mitchell—Rare; M, V; tree bark in moist chamber. (Kowalski 1987)
- Paradiacheopsis rigida* (Brandza) Nann.-Brem.—Rare; N, V; tree bark in moist chamber. (Kowalski 1987)
- Stemonitis axifera* (Bull.) T. Macbr.—Common; M, N, V; dead wood. (Macbride 1899)
- Stemonitis flavogenita* Jahn—Common; V; dead wood and plant debris. (Plunkett 1934)
- Stemonitis fusca* Roth—Common; N, V; dead wood. (Macbride 1899)
- Stemonitis herbarica* Peck—Rare; N, V; dead wood and bark. (Plunkett 1934)
- Stemonitis hyperopta* Meylan—Rare; V; dead wood. (Kowalski 1966)
- Stemonitis nigrescens* Rex—Common; V; dead wood and bark. (Plunkett 1934)
- Stemonitis pallida* Wingate—Rare; V; dead wood. (Kowalski 1966)
- Stemonitis smithii* T. Macbr.—Rare; N; dead wood. (Pratt and Pratt 1944)

Stemonitis splendens Rost.—Common; N, V; dead wood. (Plunkett 1934)
Stemonitis virginiensis Rex—Rare; V; dead wood. (Plunkett 1934)

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LITERATURE CITED

- COOKE, W. B. 1949. Myxomycetes of Mount Shasta. *Madroño* 10:55–62.
 COX, J. L. 1981. Notes on coprophilous Myxomycetes from the western United States. *Madroño* 73:741–747.
 FARR, M. L. 1982. Notes on Myxomycetes III. *Mycologia* 74:339–343.
 ———. 1988. Notes on Myctozoa. V. Corrections, redispositions, and new taxa. *Int. J. Mycol. Lichenol.* 3(2/3):199–213.
 KELLER, H. W. and T. E. BROOKS. 1977. Corticolous Myxomycetes VII: contribution toward a monograph of *Licea*, five new species. *Mycologia* 69:667–684.
 KOWALSKI, D. T. 1966. New records of Myxomycetes from California I. *Madroño* 18:140–142.
 ———. 1967a. New records of Myxomycetes from California II. *Madroño* 19: 43–46.
 ———. 1967b. Two new members of the Physarales. *Mycologia* 60:595–603.
 ———. 1967c. Observations on the Dianemaceae. *Mycologia* 59:1075–1084.
 ———. 1968a. Three new species of *Diderma*. *Mycologia* 60:595–603.
 ———. 1968b. Observations on the genus *Lamproderma*. *Mycologia* 60:756–768.
 ———. 1969a. A new coprophilous species of *Calonema* (Myxomycetes). *Madroño* 20:229–231.
 ———. 1969b. A new coprophilous species of *Didymium*. *Mycologia* 61:635–639.
 ———. 1970a. The species of *Lamproderma*. *Mycologia* 62:621–672.
 ———. 1970b. A new foliicolous species of *Licea*. *Mycologia* 62:1057–1061.
 ———. 1972a. A new name in *Licea* (Myxomycetes). *Madroño* 21:455.
 ———. 1972b. *Squamuloderma*: a new genus of Myxomycetes. *Mycologia* 64:1282–1289.
 ———. 1973a. New records of Myxomycetes from California V. *Madroño* 22:97–100.
 ———. 1973b. Notes on western Myxomycetes. *Madroño* 22:151–153.
 ———. 1974. Notes on two species of *Trichia*. *Mycologia* 66:369–374.
 ———. 1975a. The myxomycete taxa described by Charles Meylan. *Mycologia* 67: 448–494.
 ———. 1975b. The genus *Diacheopsis*. *Mycologia* 67:616–628.
 ———. 1987. New records of Myxomycetes from California. VI. *Madroño* 34: 48–56.
 ——— and D. H. CURTIS. 1968. New records of Myxomycetes from California III. *Madroño* 19:246–249.
 ——— and ———. 1970. New records of Myxomycetes from California IV. *Madroño* 20:337–381.
 ——— and R. S. DEMAREE. 1987. *Comatricha anomala*, a new record for the Western Hemisphere. *Mycologia* 79:140–141.
 LISTER, G. 1910. Two new Myctozoa. *J. Bot.* 48:73.
 MACBRIDE, T. H. 1899. The North American slime-moulds. 1st ed. The Macmillan Co., New York.

- . 1922. The North American slime-moulds. 2nd ed. The Macmillan Co., New York.
- and G. W. MARTIN. 1934. The Myxomycetes. The Macmillan Co., New York.
- MARTIN G. W. 1948a. Two new species of *Physarum*. J. Wash. Acad. Sci. 38:238–240.
- . 1948b. Myxomycetes. North Amer. Flora 1(1). The New York Botanical Garden.
- . 1961. The genus *Schenella*. Mycologia 53:25–30.
- and C. J. ALEXOPOULOS. 1969. The Myxomycetes. Univ. Iowa Press, Iowa City.
- , —, and M. L. FARR. 1983. The genera of Myxomycetes. Univ. Iowa Press, Iowa City.
- MERRILL, R. A. 1969. A Preliminary survey of the coprophilous Myxomycetes of California. Master's thesis. California State Univ., Chico.
- MOCK, D. L. and D. T. KOWALSKI. 1976. Laboratory cultivation of *Licea alexopoulis*. Mycologia 68:370–376.
- MULLEAVY, P. 1977. The description and laboratory cultivation of *Arcyria elatensis*, a new species of Myxomycetes. Mycologia 69:693–700.
- NANNENGA-BREMEKAMP, N. E. and R. L. CRITCHFIELD. 1988. Two new species of Myxomycetes from California (USA). Proceed. of the Koninklijke Nederlandse Akademie van Wetenschappen C. 91:415–418.
- ORNDUFF, R. 1974. Introduction to California plant life. Univ. California Press, Berkeley. 83 p.
- PHILLIPS, W. 1877. Fungi of California and the Sierra Nevada Mountains. Grevillea 5:113–118.
- PLUNKETT, O. A. 1934. Contributions to the knowledge of southern California fungi. I. Myxomycetes. Univ. California Los Angeles Publ. Biol. Sci. 1:35–47.
- PRATT, R. and J. PRATT. 1944. Myxomycetes of the San Francisco region. Amer. J. Bot. 31:559–561.
- WHITNEY, K. D. 1978. A new species of *Badhamia* with unique spore clusters. Mycologia 70:672–675.
- . 1980. The myxomycete genus *Echinostelium*. Mycologia 72:950–987.
- . 1982. A survey of corticolous Myxomycetes of California. Madroño 29: 259–268.
- and H. W. KELLER. 1982. A new species of *Badhamia*, with notes on *Physarum bogoriense*. Mycologia 74:619–624.